ABSTRACT OF THE DISCLOSURE

A color transform unit transforms RGB components constructing image data into C1 to C3 components. Discrete wavelet transform units perform wavelet

5   transform on the C1 to C3 components and generates coefficients of different number of subbands for at least two components. Coding units stepwisely perform reversible transform on the coefficients in a subband unit, and store the code data into buffers. A fixed-

10  length data reading unit reads the code data stored in the buffers by fixed lengths, and a code output unit outputs code data where the read code data are arrayed.